January 15, 2010

REQUEST FOR PROPOSAL FOR METHANE GAS EXTRACTION FROM MUNICIPAL LANDFILLS FOR THE CITY OF BIRMINGHAM #10-10

The City of Birmingham is soliciting proposals from qualified providers in response to this Request for Proposal (RFP) for methane gas extraction from the New Georgia Landfill and Eastern Area Landfill as a revenue providing project for the City of Birmingham.

The intent of this RFP is to select a firm for the recovery for profit of methane gas from municipal landfills as described in this document.

Parties wishing to submit a proposal can download the complete solicitation via the internet at www.birminghamal.gov (go to the link titled **Bidding Opportunities**), or by visiting the Purchasing Office at the address shown above, or by calling (205) 254-2265, fax (205) 254-2484 and requesting a copy be mailed to you. Any addenda will be available on the internet, and mailed to only those vendors who were provided a copy in person or by mail.

Each party must submit with his/her proposal a bond in the form of either a certified check, cashier's check, proposal bond, certificate of deposit or other form of security deemed acceptable by the City at its sole discretion. This proposal bond should be payable to the City of Birmingham and should be in the amount of \$1,000.00. In order for your proposal to be considered, it must be accompanied by an acceptable proposal bond. Once an award is made, the proposal bond will be returned unless we attempt to make an award to your company and you fail to accept the award.

A **MANDATORY** pre-proposal conference will be held at 9:00 a.m., February 10, 2010, in the Purchasing Conference Room, C-108, 1st Floor City Hall, 710 North 20th Street, Birmingham, AL 35203. Proposals will be accepted only from parties who attend this **MANDATORY** pre-proposal conference. Interested parties who plan to attend the pre-proposal conference are asked to confirm their attendance and submit any questions you have regarding the specifications by the end of the day February 3, 2010. You may email your questions to the attention of William E. Caffee. City of Birmingham, Purchasing Division, **BILL.CAFFEE@BIRMINGHAMAL.GOV.**

The City has 90 days after receipt to accept proposals at the prices proposed, and for any period of time thereafter if the City requests, and the proposer agrees to an additional period of time.

The City shall determine as non-responsive any proposals submitted that are deemed not to meet the minimum requirements of the specification. The City reserves the right to waive any informalities, if deemed in the best interest of the City to do so.

The City reserves the right to make an award without conducting negotiations. However, if negotiations are deemed necessary, they will be conducted with all providers who have at least a minimally acceptable proposal as determined by the proposal evaluation committee. Once all negotiations are complete, if conducted, the City will give each provider the opportunity to submit a revised proposal in the form of a Best and Final Offer.

The City reserves the right to reject any and all proposals submitted, any part or section of any proposal, and to waive any informalities.

The City follows a policy of non-discrimination. No contractor with the City should discriminate on the basis of race, sex, religion or national origin.

Proposals will be received by the Purchasing Agent, Room P-100 First Floor City Hall, 710 North 20th Street, Birmingham, AL 35203. Proposals must be received by 4:00 p.m. CDST, March 3, 2010. Proposals received after this time will not be considered.

An original and three (3) hard copies as well as one (1) digital copy of your proposal must be submitted in a sealed envelope, marked "METHANE GAS EXTRACTION FROM MUNICIPAL LANDFILLS" 4:00 p.m. CDST, March 3, 2010. Proposals may be hand delivered to P-100 First Floor City Hall, Birmingham, AL 35203 or mailed to P. O. Box 11295, Birmingham, AL 35202-1295. (DO NOT MAIL PROPOSALS TO P-100 CITY HALL). However, proposals sent by express carrier (i.e. Federal Express, Airborne, UPS, etc.) must be mailed to 710 North 20th Street and specify delivery to Room P-100 First Floor City Hall, Birmingham, AL 35203.

It is the proposer's responsibility to make sure that his proposal is in the possession of the Purchasing Agent on or before 4:00 p.m., CDST, March 3, 2010.

W. E. Caffee, Assistant Purchasing Agent

yc Attachment B.N. 01/22/10

Section I

A. Purpose

The City of Birmingham operates two (2) landfills, New Georgia and Eastern Area, with substantial closed areas currently producing methane gas. The City is seeking interested parties capable of evaluating current sites and available landfill data for potential recovery of methane gas; establish an environmentally friendly plan to capture and utilize the gas for revenue generation; provide all necessary equipment, facilities, manpower, maintenance, utilities, permits and management to develop and operate the projects. All interested parties are requested to submit a proposal(s) detailing their specific approach for a turnkey project to design, develop and operate the project(s) outlining the projected revenue generation and proposed payment to the City for the gas recovered.

B. Scope

Interested parties will be provided a description of the areas available for recovery of methane gas at both landfill sites along with any existing landfill data for the purpose of evaluating the sites. The party will create an environmentally friendly plan for the design and construction of facilities for the efficient and economic recovery of methane gas present at the landfill sites. The project is a complete turnkey operation with all aspects of costs (planning, design, permits, licenses, rights of way, utilities, insurance, construction, extraction, labor and management and any/all other items of cost related to the project) being the responsibility of the successful party.

The successful party must meet the following minimum qualifications and criteria:

- 1. Successful party shall have at least five (5) years experience in the planning, design and recovery of methane gas from landfill operations.
- 2. Any interested party is required to make an on-site visit to each location of interest to the party. Contact Paul Ward to make an appointment to gain access to the sites phone (205) 335-4690 (Cell) or (205) 655-7797 (Office) email paward@ci.birmingham.al.us for the purpose of inspecting site and/or any testing for their own evaluation.
 - (a) Party must have written approval for any testing prior to conducting the test.
 - (b) Party must provide evidence of commercial general liability insurance and sign a hold harmless statement to be provided by the City prior to any testing. Copy of any test results is to be provided to the City of Birmingham with their proposal. Any proposal submitted will be construed as evidence that the on-site visit was performed.

- 3. Explain and/or describe the method of extraction by which the landfill gases will be safely handled or managed at all times.
- 4. Provide a detailed description of the method and procedures used when any surface areas are to be disturbed where any existing buried waste is disturbed or removed and the method or procedure for proper disposal of the disturbed waste.

NOTE: Successful party is responsible for repair of any protective layer (closure cap) and mandated (ADEM) copies of documented repairs.

- 5. Successful party is responsible for any/all taxes, fees, levies, etc. associated with the recovery of landfill gases.
- 6. Provide a simple implementation plan to include:
 - (a) Time line showing major milestones
 - (b) Description of the major steps in the implementation plan
 - (c) The resources, especially personnel, that your company will dedicate to this activity
 - (d) Provide the name of a single individual in your organization that will have responsibility for managing the implementation process.

7. Existing Conditions

a. New Georgia Landfill 2500 47th Avenue North Birmingham, AL 35217

Has had prior gas recovery and there are existing gas wells, well heads and associated connected piping. City does not guarantee the condition of the existing piping, well and well heads.

b. Eastern Area Landfill2787 Alton DriveBirmingham, AL 35210

Has had no prior gas recovery. Therefore, no infrastructure currently exists at this site.

- 8. For general information, a drawing of each landfill (Figure F & Figure G) and a cross section of the vertical expansion protective layer are provided in this document.
- 9. Title V, Tier 2 testing results from each landfill are provided for your review.

C. City's Intent

Parties are asked to submit a response to the RFP documenting the experience of their company and its assigned personnel. Parties are to submit a separate proposal for each landfill. The City intends to award a contract to one party for each individual landfill. An optional proposal inclusive of both landfills may be submitted in addition to the individual proposals for each landfill, but not in lieu of the individual proposals.

The City will enter into a contract, which it determines, after evaluation of all proposals, to be most favorable for the City. Contract award will be based on evaluation of the selection criteria set forth later in this RFP. The City reserves the right to select a party and make an award to the party determined to be the most advantageous to the City based on the City's evaluation criteria, or to make no award at all. The City anticipates that negotiations will be necessary; however, the City reserves the right to make an award without negotiations. If negotiations are initiated, they will be conducted with all parties still in the competitive range at the time negotiations may be deemed necessary.

D. **RFP Procedures**

1. **Contacts & Queries**

For additional general information or questions regarding this RFP, contact the Purchasing Division, phone (205) 254-2265 or fax (205) 254-2484.

2. **Amendment and Clarification Procedures**

Interested parties who plan to attend the mandatory pre proposal conference are asked to confirm their attendance and submit any questions you have regarding the specifications by the end of the day February 3, 2010. You may email your questions to the attention of William E. Caffee. City of Birmingham Purchasing Division,

BILL.CAFFEE@BIRMINGHAMAL.GOV.

Inquiries about this RFP must be received in writing by the Purchasing Agent mentioned above. Any questions or clarifications deemed to be of a significant nature will be answered by amendment to the RFP and will be available on the internet, and mailed to only those providers who were provided a copy in person or by mail. The City may delay the proposal receipt date if it deems necessary.

Any verbal clarifications provided by the City representatives shall not be binding on the City and shall in no way excuse the respondent from obligations as set forth in this RFP, or in any way amend the provisions of this RFP.

3. Submission Requirements

Parties should submit an original plus three (3) copies as well as one (1) digital copy of their proposal. Proposals shall be complete and address all the information listed in Section II of this document. Proposals and all conditions therein shall remain in effect for at least 90 days after the submittal deadline. The City reserves the right to request further proposal extensions after the initial 90 days. The City reserves the right to reject any proposal as non-responsive if it does not provide all data requested in Section II of this RFP.

4. Preparation of Proposals

Responses to this RFP must be completed as mentioned above. Elaborate qualifications and brochures are not desired. Clear, concise, and orderly information is important. All pages shall be numbered consecutively. Proposals shall be included in binders with tabs to separate the information requested in Section II.

The party is expected to respond to all items in Section II in as much detail as necessary for the City to make a fair evaluation of the party's proposal.

Responses which are incomplete, not properly signed, not accompanied by a \$1,000.00 proposal bond, or otherwise contrary to the guidelines of this RFP, may be deemed as non-responsive and rejected and will receive no further consideration.

5. Submittal Deadline for Responses

Proposals must be received on or **before 4:00 p.m.**, **March 3, 2010, CDST** at the following address:

City of Birmingham 710 20th Street North, Room P-100 Birmingham, AL 35203

All proposals shall be submitted in sealed envelopes and clearly marked "Response to RFP for Methane Gas Extraction from Municipal Landfills". No proposals will be opened until after the submittal deadline. The City will return, unopened, any proposals received after the time and date specified.

6. **Disposition of Proposals**

All proposals become the property of the city and will be returned only at the party's expense. In any event, one copy of each proposal will be retained for the City's official files.

7. Proprietary Data

If a proposal includes any proprietary data or information that the party does not want disclosed to the public, such data or information must be specifically identified as "Proprietary" on each individual page which contains such information. Pages of the proposal that do not contain proprietary information should not be marked as such. Information marked as such will only be used by the City for the purpose of evaluating proposals and conducting contract negotiations.

All proposals, exclusive of pages designated "Proprietary", will become a matter of public record. Each party agrees, by submitting their proposal, that the City Administration has the right to use any or all ideas or concepts presented, in any proposal, without restrictions and without compensation to proposer thereof.

8. Modification or Withdrawal of Proposals

Any proposal may be withdrawn or modified by written request of the party provided such request is received by the City prior to the submittal deadline. Modifications received after the deadline will not be considered. Withdrawal of proposals after the submittal deadline will cause the party to forfeit their proposal bond.

9. Cost of Response Preparation

The cost of preparing a proposal to this RFP will not be reimbursed to the proposing party.

10. General Contract Requirements

a. Licenses

All parties shall be licensed to do business in the State of Alabama and possess a current City of Birmingham business license.

b. Taxes

Municipalities are not liable for sales tax: reference Code of Alabama Section 40-23-4. Lease price must include all costs associated with the lease. Cost normally considered pass through costs (property tax, use tax etc.) to the customer by the party must be included in the bid price (Code of Alabama Section 40-12-222).

c. Choice of Law

Any contract (agreement) resulting from this RFP shall be governed in all respects by the laws of the State of Alabama, Jefferson County, and the City of Birmingham.

d. Negotiations

The City reserves the right to negotiate with the successful party any terms and conditions which may be necessary or appropriate to accomplish the purpose and scope of the RFP; however, the City reserves the right to make an award without conducting negotiations.

e. Best and Final Offers (BAFO)

If negotiations are conducted, once negotiations are completed, BAFO's will be requested. At this time parties will have the opportunity, if they so desire, to revise their proposal including the compensation being offered to the City.

f. Insurance

The successful party shall carry general liability insurance (either primary or a combination of primary and umbrella coverage) with limits of not less than \$2,000,000.00 total with a maximum of \$2,000,000.00 for each occurrence and shall include, but not be limited to, personal injury, property damage, vandalism, property loss and theft. The successful party shall also carry automobile liability insurance with limits of not less than \$1,000,000.00 bodily injury per occurrence, \$1,000,000.00 property damage with combined single limit of \$2,000,000.00. Party shall carry Workman's Compensation coverage in an amount adequate to comply with the statutory requirements. Such policies shall name the City of Birmingham as an additional insured and shall contain an endorsement providing that the City will be given not less than thirty (30) days notice in writing prior to cancellation or change of coverage provided by said policies. Insurance shall be through companies authorized to do business in the State of Alabama. Certificate of insurance must be presented to the City within ten (10) days of notice of award and prior to commencement of any work. Successful party is required to include the proposal number on the evidence of insurance document. Policies that state the company will endeavor to provide thirty (30) days notice prior to cancellation or change of coverage, but failure to do so shall impose no obligation or liability of any kind upon the insurer, its agents or representatives are not acceptable. Insurance shall be through companies authorized to do business in the State of Alabama with a B+ rating or better according to the most current edition of Best's Insurance Reports. Party is to provide written documentation of the company's rating with the proposal.

g. Indemnity

After the award, the successful party shall assume all liability for and shall indemnify and save and hold harmless the City of Birmingham and all of the officers, directors, agents, and employees of the aforementioned entities from all damages and liability for injury to any person or persons, and injury to or destruction of property, including the loss of use thereof, by reason of an accident or occurrence arising from operations under the contract, whether such operations be by the successful party or by any subcontractors or by anyone directly or indirectly employed by either of them, occurring on or about the premises or the ways and means immediately adjacent, during the term of the contract or any extension thereof, and shall also assume the liability for injury.

h. Early Termination

- (A) Contract may be terminated at any time by agreement between City and successful party. Contract may be terminated by either party at any time, without advance notice, in the event of the other party's material breach of this contract. Contract may be terminated by City, at any time, without advance notice, in the event of party's continued or repeated failure or inability to perform its obligations under this contract which shall include, but not be limited to, the discontinuance of operations by successful party at the landfill for a continuous period of six (6) months or more, other than for reasons beyond successful party's control.
- **(B)** Upon termination of the contract, successful party shall remove any processing equipment utilized by successful party. Any equipment which is not removed within six (6) months of the date of the termination of this contract shall become the property of the City. At the sole option of City, the successful party shall be required to leave the well field system in place so that the remaining gas may be vented, or to cap and seal each well.

i. Assignment

Successful party shall not assign this contract to any other party without prior written approval of the City of Birmingham.

j. Contract Time Frame

The base contract shall be for a period in the range of 10-20 years with an option for two independent five year term extensions upon mutual agreement of both parties.

Other contract time options may be proposed, but none shall exceed thirty years total.

k. Parties shall provide a sample copy of their contract agreement form.

E. Selection Criteria

1. Development of Short List

Selected parties will be placed on a short list by the evaluation team according to the quality and responsiveness of their proposals. Proposals, which are not placed on the short list, will receive no further consideration. The City reserves the right to short-list any number of providers based on the merits of their proposals. Each party's proposal may be selected for the short list after being reviewed for completeness and adherence to format. A proposal will be considered complete if all requested sections as outlined in Section II below are addressed and in the proper order.

2. Formal Evaluation of Short Listed Vendors

a. The evaluation team will grade each short listed party's proposal based on its merits. Responses will be evaluated in light of the material actually provided and not on the basis of what is inferred. The evaluation process may include verification of references, verification of project team resumes, confirmation of financial information, and may also include site visits or other information as directed by the City.

b. Notification

The City will make a public notice as per the law and notify all the short listed firms of the eventual notice of the award.

Section II Vendor Proposal Guidelines

- A. Table of Contents
- B. Executive Summary
- C. Provider's Qualifications

1. Profile Data

- a. Party's Name and Address
- b. Name, Title, Phone and Fax Number of Two Contact People
- c. Type of Entity

Discuss the type of entity your company represents (i.e., corporation, partnership, etc.), and whether your company is the parent company, a division, subsidiary, or branch office of another entity. Disclose any other entities directly associated with this proposal.

d. Party's Philosophy

Discuss what you believe distinguishes your company in the industry.

- e. Federal Employee Identification Number
- f. Statement of Party's Compliance with this RFP

Provide a signed statement from an authorized officer of the firm stating that any related contracts with the City will comply with criteria defined in this RFP, and that all material, dates and conditions contained in the party's proposal to this RFP shall remain in effect for at least 90 days.

2. Capability of Party

- a. Number of years in business.
- b. Provide a list of at least five references (of a similar size and contract make up as being requested in this proposal) currently using the methane gas extraction from municipal landfills services included in this proposal. Each reference must include: name and contact information, contact person and phone number fax number email address.
- c. Provide a list of all accidents that involved injuries of public and employees over the last five (5) years. Also provide list of lawsuits arising out of injuries or deaths in the last five (5) years, as well as status of same as of the date of proposal or BAFO submittal.

3. Financial Condition of Party

Provide an independent audit of Annual Financial Statement for your company, inclusive of Financial Condition, Income Statement and Cash Flow Statement, dated no earlier than one year prior to RFP submittal deadline.

4. Project Team

Clearly indicate the personnel who will be assigned to the management and operation of this project and their specific project responsibilities. Include their qualifications, including special training and years of experience.

D. Technical Information

Provide a detailed description of the methane gas extraction from the planning stage to the recovery and payment stages proposed. Itemize each step and provide detailed description of each step.

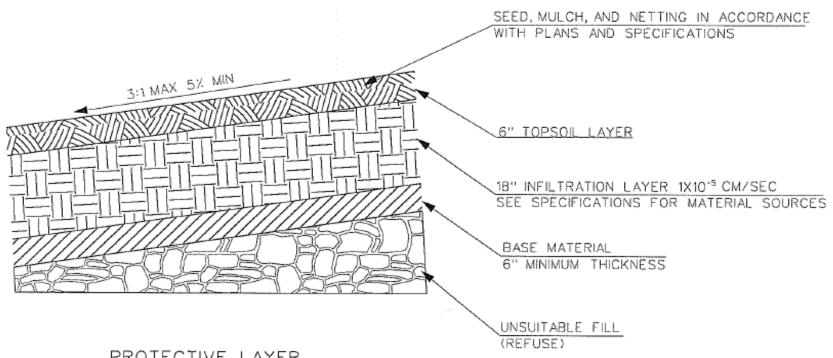
E. Payment

Party must provide a stated methodology of determining the volume of gas being recovered, value of the gas and formula for determining the amount of payment due the City at established payment intervals.

NOTE: Proposal must be signed by an official with authority to bind the provider contractually. The original proposal must have original signature. The name and title of the individual signing the proposal shall be typed immediately below the signature.

Successful party acknowledges and agrees that the City has the right to deduct from total amount of consideration to be paid, if any, to the successful provider under this contract all unpaid, delinquent, or overdue license fees, taxes, fines, penalties and other amounts due the City from the successful party.

City of Birmingham must have a copy of the successful party's current City of Birmingham business license prior to formal award of contract. Each party may submit a copy of his/her license along with his/her proposal. However, party must provide a copy of his/her current business license no later than 7 working days of receipt of notice of intent to award. Failure to submit the requested information will result in the notice of intent to award being revoked.



PROTECTIVE LAYER

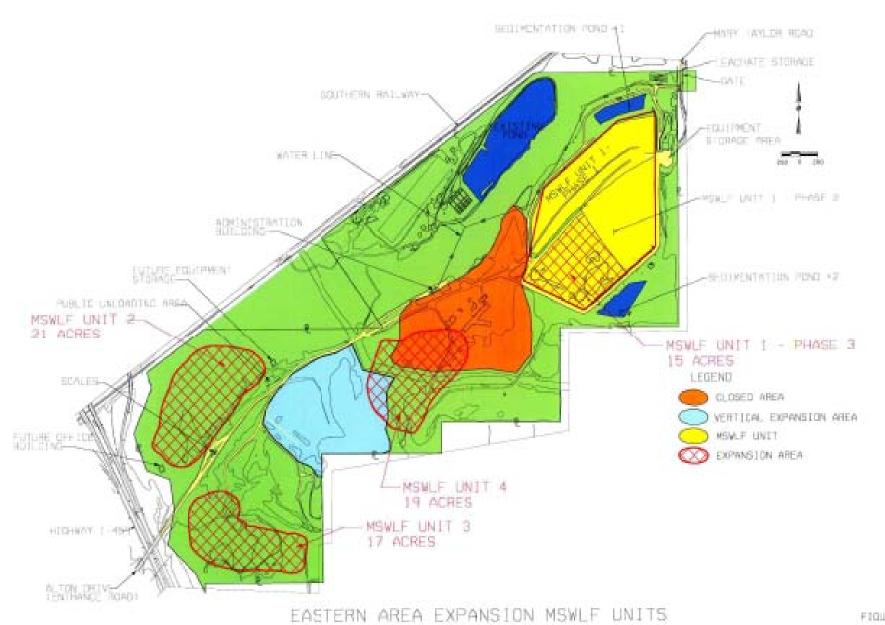
SHALL BE USED ON ALL AREAS WITHIN THE CONSTRUCTION LIMITS AND ON ALL OTHER AREAS SCARRED BY CONSTRUCTION WITHIN THE VERTICAL EXPANSION AREA BOUNDARY, UNDERCUTTING AND BACKFILLING WILL BE REQUIRED TO INSTALL THE PROTECTIVE LAYER AND TO MEET COMPACTION REQUIREMENTS, THIS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE PROJECT.

EASTERN AREA LANDFILL TOTAL PROPERTY AT EASTERN 368.43 ACRES

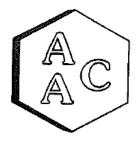
CLOSED ARE CYIP	A 1,500,000	ACRES	36.09	Orange Area
VERTICAL EX	XPANSION AREA 2,400,000	ACRES	28.58	Blue Area
PHASE 1 CYIP	928,000	ACRES	18.02	Partial Yellow Area
PHASE 2	750,000 (FUTURE)	ACRES	12.7	Partial Yellow Area
PHASE 3	1,572,000 (FUTURE)	ACRES	15 (APPROX)	Cross Hatched Yellow Area
TOTAL SUBT	ITLED "D" AREA 3,250,000 (AT FULL BUILDOUT)	ACRES	46	Total of all the Yellow Area

NEW GEORGIA LANDFILL TOTAL PROPERTY AT NEW GEORGIA 702ACRES

CLOSED ARE CYIP	Z A 1 7,923,080	ACRES	49.11	Orange Area
VERTICAL E CYIP	XPANSION AREA 14,281,227	ACRES	88.52	Blue Area
PHASE 1 ACT	TIVE 690,000 (FUTURE)	ACRES	11	Partial of Pink Cross Hatched Area
PHASE 2 CY	1,610,000 (FUTURE)	ACRES	15	Balance of Pink Cross Hatched Area







CLIENT

: Carlson Environmental

PROJECT NAME

: Eastern Area Tier 2

AAC PROJECT NO.

: 090993

REPORT DATE

: 12/18/2009

On December 14, 2009, Atmospheric Analysis & Consulting, Inc. received twenty (20) Six Liter Summa Canisters for Non-methane organic compounds by EPA Method 25C, and Fixed Gases analysis by EPA 3C. Upon receipt the samples were assigned unique Laboratory ID number as follows:

Client ID	Lab No.
CEC.SUMMA.014	090993-42486
CEC.SUMMA.067	090993-42487
CEC.SUMMA.342	090993-42488
CEC.SUMMA.158	090993-42489
CEC.SUMMA.148	090993-42490
CEC.SUMMA.155	090993-42491
CEC.SUMMA.074	090993-42492
CEC.SUMMA.070	090993-42493
CEC.SUMMA.058	090993-42494
CEC.SUMMA.065	090993-42495

Client ID	Lab No.
CEC.SUMMA.099	090993-42496
CEC.SUMMA.093	090993-42497
CEC.SUMMA.073	090993-42498
CEC.SUMMA.112	090993-42499
CEC.SUMMA.134	090993-42500
CEC.SUMMA.013	090993-42501
CEC.SUMMA.081	090993-42502
CEC.SUMMA,339	090993-42503
CEC.SUMMA.139	090993-42504
CEC.SUMMA.149	090993-42505

Sample ID #090993-42503, 090993-42504, and 090993-42505 were placed on hold per client request.

EPA 25C Analysis - Up to a 1 mL aliquot of samples is injected into the GC/FID/TCA for analysis following EPA 25C as specified in the SOW.

EPA 3C - An aliquot of the gaseous sample is injected into the GC/TCD for analysis following EPA 3C as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI- EPA 25C, and EPA 3C.

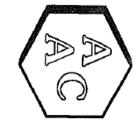
I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sticha S. Parmar, PhD Technical Director

This report consists of 9 pages.

SOUTH ACCOUNTS



Laboratory Analysis Report

Sampling Date 12/09-11/2009 Receiving Date 12/14/2009

Analysis Date 12/15-16/2009 Report Date 12/18/2009

Client Carlson Environmental Project No. 090993

Matrix AIR
Units ppmV

EPA Method 25C

Reporting Limit: 1-4 ppm F	Timed for the	Cantiler Dilution	Analysis Dilacion		SRL
Client Sample ID	AACID	Factor	Factor	INMOC	(RL x DF's)
CEC.SUMMA.014	090993-42486	2.0	1.0	58	2.0
CEC.SUMMA.067	090993-42487	1.6	1.0	62	1.6
CEC.SUMMA.342	090993-42488	1.7	1.0	242	1.7
CEC.SUMMA.158	090993-42489	1.6	1.0	31	1.6
CEC.SUMMA.148	090993-42490	1.6	1.0	36	1.6
CEC.SUMMA.155	090993-42491	1.6	1.0	38	1.6
CEC.SUMMA.074	090993-42492	1.6	0.1	40	1.6
CEC.SUMMA.070	090993-42493	1.5	0.1	<srl< td=""><td>1.5</td></srl<>	1.5
CEC.SUMMA.058	090993-42494	1.9	0.1	22	1.9
CEC.SUMMA.065	090993-42495	1.6	1.0	33	1.6
CEC.SUMMA.099	090993-42496	3.6	1.0	<srl< td=""><td>3.6</td></srl<>	3.6
CEC.SUMMA.093	090993-42497	3.9	0.1	200	3.9
CEC.SUMMA.073	090993-42498	19.7	0.1	<srl< td=""><td>19.7</td></srl<>	19.7
CEC.SUMMA.112	090993-42499	6.11	0.1	127	6.11
CEC.SUMMA.134	090993-42500	5.7	1.0	49	5.7
CEC.SUMMA.013	090993-42501	12.4	1.0	152	12.4
CEC.SUMMA.081	090993-42502	3.3	0.1	35	3.3

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Conister Dilution Factor x Analysis Dilution Factor (ij applicapble)

*Total Non-Methane Organic Compounds as Methane

650 1643

Sucha S. Parmar, Ph.D

Technical Director

Page 2

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(805) 650-1642

FAX (805) 650-1644



Laboratory Analysis Report

Receiving Date 12/14/2009 Sampling Date 12/09-11/2009

Report Date 12/18/2009 Analysis Date 12/16-17/2009

Matrix Client: Project No. 090993 Carlson Environmental

EPA Method 3C

Reporting Limits 0.10 % Client ID AAC	AACID	Canister Dilution Factor	В,	0,	Z	Analyse CO	СН	CO;	SRL (RL x DF)
CEC.SUMMA.067	090993-42486	1.6	SE SE	02	0.8	-SRL	58.6	38.2	0.20
CEC.SUMMA.342	090993-42488	1.7	-SRI.	6.0	22.6	^SRL	44.1	27.2	0.17
CEC.SUMMA.158	090993-42489	1.6	Ş₽.	6.8	24.9	^SRL	49,4	18.9	0.16
CEC.SUMMA.148	090993-42490	1.6	SR1.	2	0.4	<srl< td=""><td>59.6</td><td>40.0</td><td>0.16</td></srl<>	59.6	40.0	0.16
CEC.SUMMA.155	090993-42491	1.6	-SRL	0.3	1.5	<\$RL	59.3	39.0	0.16
CEC.SUMMA.074	26727-266060	1.6	-SRL	0.6	00	∽SRL	62.3	28.3	0.16
CEC.SUMMA.070	090993-42493	1.5	<sri.< td=""><td>0.9</td><td>4.0</td><td>-SRL</td><td>59.9</td><td>35.1</td><td>0.15</td></sri.<>	0.9	4.0	-SRL	59.9	35.1	0.15
CEC.SUMMA.058	090993-42494	6.1	SR1.	0.9	6.2	<\$RL	70.9	22.1	01.0
CEC.SUMMA.065	090993-42495	1.6	<srl< td=""><td>0.7</td><td>3.5</td><td><srl< td=""><td>61.2</td><td>34.6</td><td>0.16</td></srl<></td></srl<>	0.7	3.5	<srl< td=""><td>61.2</td><td>34.6</td><td>0.16</td></srl<>	61.2	34.6	0.16
CEC.SUMMA.099	090993-42496	3.6	<srl< td=""><td>0.3</td><td>2.0</td><td><sri.< td=""><td>60.5</td><td>37.2</td><td>0.36</td></sri.<></td></srl<>	0.3	2.0	<sri.< td=""><td>60.5</td><td>37.2</td><td>0.36</td></sri.<>	60.5	37.2	0.36
CEC.SUMMA.093	090993-42497	3.9	<srl< td=""><td>0.2</td><td>2.3</td><td><srl< td=""><td>58.9</td><td>38.5</td><td>0.39</td></srl<></td></srl<>	0.2	2.3	<srl< td=""><td>58.9</td><td>38.5</td><td>0.39</td></srl<>	58.9	38.5	0.39
CEC.SUMMA.073	090993-42498	19.7	<srl< td=""><td>4.7</td><td>23.3</td><td><srl< td=""><td>45.9</td><td>26.2</td><td>1.97</td></srl<></td></srl<>	4.7	23.3	<srl< td=""><td>45.9</td><td>26.2</td><td>1.97</td></srl<>	45.9	26.2	1.97
CEC.SUMMA.112	090993-42499	6.11	<srl< td=""><td>4.2</td><td>20.9</td><td><srl< td=""><td>45.7</td><td>29.3</td><td>1.19</td></srl<></td></srl<>	4.2	20.9	<srl< td=""><td>45.7</td><td>29.3</td><td>1.19</td></srl<>	45.7	29.3	1.19
CEC.SUMMA.134	090993-42500	5.7	<srl< td=""><td>1.9</td><td>8.6</td><td><srl< td=""><td>56.1</td><td>33.5</td><td>0.57</td></srl<></td></srl<>	1.9	8.6	<srl< td=""><td>56.1</td><td>33.5</td><td>0.57</td></srl<>	56.1	33.5	0.57
CEC.SUMMA.013	090993-42501	12.4	<srl< td=""><td>1.1</td><td>6.0</td><td><srl< td=""><td>59.6</td><td>33.3</td><td>1.24</td></srl<></td></srl<>	1.1	6.0	<srl< td=""><td>59.6</td><td>33.3</td><td>1.24</td></srl<>	59.6	33.3	1.24
CEC.SUMMA.081	090993-42502	3.3	<srl< td=""><td><u> </u></td><td>6.5</td><td><srl< td=""><td>60.3</td><td>32.2</td><td>0.33</td></srl<></td></srl<>	<u> </u>	6.5	<srl< td=""><td>60.3</td><td>32.2</td><td>0.33</td></srl<>	60.3	32.2	0.33
Sample Reporting Limit (SBI) is equal to Personal College (SBI)	DI is ented to Do	Time to							

Sample Reporting Limit (SRL) is equal to Reporting Limit (RL) x Canister Dilution Factor (DF) (if applicapble)

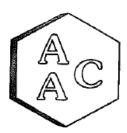
Sucha S. Parmar, Ph.D.

Technical Director

₩

FAX (805) 650-1644 Page 3

(805) 650-1642



Quality Control/Quality Assurance Report

Date Analyzed : 12/16/2009

Analyst

: DN

Units

: %

Instrument ID : TCD#5

Calb Date

: 05/07/09 Reporting Limit: 0.1%

I - Opening Continuing Calibration Verification - EPA Method 3C

1 - Opening Communing Cammanon	CITICALION - DIA	michiod 3C				
AAC ID Analyte	Section Hydrodical	0,	N ₂	CO	CH,	CO,
Spike Conc	20.0	5.25	20.0	20.0	20.0	20.0
CCV Result	18.9	5.15	19.37	17.51	17.47	17.51
% Rec *		98.2	96.9	87.5	87.3	87.6

II - Method Blank-EPA Method 3C

AAC ID Analyte	Hydrogen	Oxygen	Nitrogen	co	Methane	co,
Concentration	ND	ND	ND	ND	ND	ND

III-Laboratory Control Spike & Duplicate - EPA Method 3C

AAC ID	Analyte	H,	N. Company	CO	CH	COi
************	Sample Conc	0.0	0.0	0.0	0.0	0.0
	Spike Conc	20.0	20.0	20.0	20.0	20.0
	LCS Result	19.0	19.7	17,6	17.4	17.6
Lab Control	LCSD Result	19.2	19.5	17.8	17.4	17.5
Standards	LCS % Rec *	95.0	98.6	88.2	87.0	87.8
	LCSD % Rec *	96.2	97.7	88.9	86.8	87.6
	% RPD ***	1.2	0.9	0.8	0.2	0.2

IV-Sample & Sample Duplicate - EPA Method 3C

iv-sample & sam	pre mabucare - e.c.	A INTERROR SC			The second secon		
AAC ID	Analyte	H,	O ₂	N ₂	CO	CH _c	CO _z
500000000000000000000000000000000000000	Sample	0.00	0.05	0.34	0.00	25.80	16.20
	Sample Dup	0.00	0.04	0.33	0.00	25.55	16.07
090993-42486	Mean	0.00	0.04	0.3	0.00	25.67	16.13
	or DDD Ass	0.00	6.90	4.19	0.00	0.97	0.85

V-Matrix Spike & Duplicate- EPA Method 3C

AAC TD	Anglyte	303000 H \$333330	888888N,9888888	CO	CH,	co,
	Sample Conc	0.0	0.2	0.0	12.8	8.1
	Spike Conc	10.0	10.0	10.0	10.0	10.0
	MS Result	9.8	10.3	8.9	21.0	16.4
hbn991-41486	MSD Result	10.0	10.5	9.1	21.5	16.9
	MS 24 Rec ++	98.0	100.8	89.3	81.2	83.5
	MSD % Rec **	99.6	103.1	90.8	86.9	88.0
	4/ pphysas	1.6	2.2	1.6	6.8	5.2

VI - Closing Continuing Calibration Verification - EPA Method 3C

YI - Closing Continuing Cantil actor	VELIMENTOR - EXT.	Tracellou D.C.			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s
A A C TD Analyte	Н,	O ₂	N ₂	CO	CH ₄	COi
Shike Cone	20.0	5.25	20.0	20.0	20.0	20.0
920	19.6	4.98	18.69	18.18	17.79	18.00
% Rec*	98.1	94.8	93.5	90.9	88.9	90.0

^{*} Must be 85-115%

Technical Director

Page 4

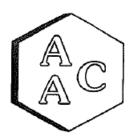


^{**} Must be 75-125%

^{***} Must be < 25%

ND = Not Detected

<RL = less than Reporting Limit



Quality Control/Quality Assurance Report

Date Analyzed : 12/17/2009

: DN Analyst Units

: %

Instrument ID : TCD#5

: 05/07/09 Calb Date Reporting Limit: 0.1%

1 - Opeaning Continuous Cambration v	CHINICATION - TELM	THE LINGS SC				10000170001
AACID Analyte	######################################	0,	N ₂	CO	СН,	CO,
Spike Conc	20.0	5.25	20.0	20.0	20.0	20.0
CCV Result	19.7	4.61	18.83	18.23	17.80	18.00
% Rec *	98.4	87.9	94.2	91.2	89.0	90.0

II - Method Blank-EPA Method 3C

11 - Medica Diank-Di & Medica De						
AAC III Anatute	Hydrogen	Oxygen	Nitragen	co	Methane	00000 00 700000
Company Compan	447,444,9844	**************************************	175	NP	N153	MD
MB Concentration	ND	ND	ND	ND	עא	ND

III-Laboratory Control Spike & Duplicate - EPA Method 3C

AAC ID	Analyte	H,	N ₁	CO	CH ₄	CO
*************	Sample Conc	0.0	0.0	0.0	0.0	0.0
	Spike Conc	20.0	20.0	20.0	20.0	20.0
	LCS Result	19.4	19.7	17.5	17.5	17.7
Lab Control	LCSD Result	19.3	19.7	17,6	17.5	17.7
Standards	LCS % Rec *	96.8	98.6	87.7	87.7	88.6
	LCSD % Rec	96.6	98.3	87.8	87.4	88.3
	% PPD ***	0.2	0,3	0.2	0.2	0.3

IV-Sample & Sample Duplicate - EPA Method 3C

LA-Satisbie of garabic publicate, et s	T INTELLIGIOUS SC			The second second		
AAC ID Analyte		O _i	N ₁	CO	CH	CO ₁
Sample	0.00	0.37	1.91	0.00	32.79	18.55
Saomle Dup	0.00	0.36	1.82	0.00	32.80	18.58
090993-42495 Mean	0.00	0.36	1.9	0.00	32.80	18.56
% RPD ***	0,00	1.65	4.56	0.00	0.04	0.16

V-Matrix Spike & Duplicate- EPA Method 3C

AACID	Analyte	SHARE THE SECOND	N ₁	CO	CH ₄	CO,
	Sample Conc	0.0	0.9	0.0	16.4	9.3
	Solke Conc	10.0	10.0	10,0	10.0	10.0
	MS Recuit	10.0	10.8	8.8	23.9	17.3
hbanda 4340¢	MCD Decoil	10.1	11.0	9.2	24.4	17.6
	MS % Rec ++	99.8	99.0	88.4	75.1	80.7
	CIVID TO ME	101.2	100.3	91.5	79.7	83.4
	4/ Den xxx	1.4	1.3	3.5	6.0	3.4

VI. Claring Continuing Calibration Verification - EPA Method 3C

VI - Closing Continuing Cantil anon	VEITHCAUGH - ELA	Without	A STATE OF THE PARTY OF THE PAR		A R. S. S. P. S. Saladad, C. S. S. S. S. S. S.	the state of the s
And the second nature	A.	Ο,	N ₁	CO	Con CH (Control	CO,
Spike Conc	20.0	5.25	20.0	20.0	20.0	20.0
Spike-Louc	10.0	5.07	18.83	17.48	17.24	17.49
CEV Result	19.2	3.01	04.1	87.4	86.7	87.4
-	96.2	96.6	94.1	07.4	50.1	

^{*} Must be 85-115%

Technical Director

^{**} Must be 75-125%

^{***} Must be < 25%

ND = Not Detected

<RL = less than Reporting Limit



Quality Control/Quality Assurance Report

Analysis Date: 12/15/2009

DN

Analyst: Units:

ppmv

Instrument ID:

FID#9

Calibration Date:

1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
СО	11713	10868	7.5
CH4	11996	11322	5.8
CO2	11842	10738	9.8
Propane	33025	30181	9.0

II - Method Blank - Method 25C

AAC ID	Analyte	Sample Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

	AAC ID	Analyte	Added	Result	Result	% Rec **	% Rec **	
--	--------	---------	-------	--------	--------	----------	----------	--

IV - Closing Calibration Verification Standard - Method 25C

Analyte	xCF	dCF	%RPD*
CO	11713	10773	8.4
CH4	11996	11957	0.3
CO2	11842	11471	3.2
Propane	33025	31513	4.7

xCF - Average Calibration Factor from Initial Calibration Curve

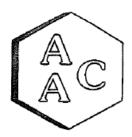
dCF - Daily Calibration Factor

* Must be <15%

** Must be 90-110 %

*** Must be <20%

Technical Director



Quality Control/Quality Assurance Report

Analysis Date: 12/16/2009

TORT

DN

Analyst: Units:

ppmv

Instrument ID:

FID#9

Calibration Date:

1/18/2008

I - Opening Calibration Verification Standard - Method 25C

Analyte	хCF	dĊF	%RPD*
СО	11713	10643	9.6
CH4	11996	11537	3.9
CO2	11842	10658	10.5
Propane	33025	29445	11.5

II - Method Blank - Method 25C

AAC ID	Analyte	Result
MB	TNMOC	ND

III - Laboratory Control Spike & Duplicate - Method 25C

AAC ID	Analyte	Spike Added	LCS Result	LCSD Result	LCS % Rec **	LCSD % Rec **	% RPD***
LCS/LCSD	TNMOC	50.0	48.0	49.5	96.1	98.9	2.9

IV - Closing Calibration Verification Standard - Method 25C

Analyte	*CF	dCF	%RPD*
CO	11713	11446	2.3
СН4	11996	11880	1.0
CO2	11842	11813	0.2
Propane	33025	34311	3.8

xCF - Average Calibration Factor from Initial Calibration Curve

dCF - Daily Calibration Factor

* Must be <15%

** Must be 90-110 %

*** Must be <20%

Sucha Parmar, Ph.D Technical Director



1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

	Juished by (Signature) Print name	Print name:	07:5A	+	5 12.10.09 15:29	12.10.00 13:46	42493 12.10.09 11.25 LFG			12:10:09 08:26	12.09.09	hO.6071	12.04.0g	12.09.09		ame)	is Carlson		N Name Project Name
12/4/2007 034 T	12:11:09 19:00	C M C Date/Time	CEC. SUMMA, 093 SUMMA	CEC. SUMMA. 091 SUMMA	CEC. SUMMA. OGS SUMME	CEC. SUMMA. OSB SUMMA	CLEC. SUMMA 070 SUMMA	CEC. SUMMA. 074 SUMMA	CEC. SUMMA. 155 SUMME	CEC. SUMMA. 148 SUMME	CEC. SUMMA. 158 SUMMA	CEC. SUMMA 342 SUMMA	CEC. SUMMA. 067 SUMMA	CEC.SUMMA. 014 SUMMA	Client Sample ID/Description Type/No. of containers	Sampler's Signature 941 4. WWV	umber	Eastern Area Tier 2	ודי ו
Received by (Signature) Print Name Received by (Signature) Print Name	10001400		×	×	*	*	Special Intructions / remarks:	X Normal X		nd Time	Y P.O.#	Attn:	X Same as report	Send Invoic	EPA He	Attn: Kris Corlson	Monrae, MC 28:17	Analysis Requested Send Report CEC	UEST FORM



1534 Eastman Avenue, Suite A Ventura, California 93003 Phone (805) 650-1642 Fax (805) 650-1644 E-mail: info@aaclab.com

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Date/Time 12/14/2017 694	Eric 5 McGec Date/Time 19:01	, in the same of t		17/149 /	CEC. SUMMA. 020 SUMMA	CEC. SUMMA. 139 SUMMA	CEC. SUMMA. 339 SUMMA	CEC. SUMMA. OBI SUMMA	CEC. SUMMA. 013 SUMMA	CEC. SUMMA. 134 SUMMA	CEC. SUMMA. 112 SUMMA	CEC. SUMMA-073 SUMMA	Type Client Sample ID/Description Type/No. of containers	Sampler's Signature 94 4 MM	Project Number	Eastern Area Tier 2	CHAIN OF CUSTODY / ANALYSIS REQUEST FORM
Received by (Signature) & Ciffen	Received by (Signature) Print Name				HOLD AS BACK Special Intructions / remarks:			X Turn Around Time	X P.O.#	X Attn:	X Same as report	X Send Invoi	EFA Me		Monre, NC 28112	Analysis Requested Send Report CEC	UEST FORM



CANISTER PRESSURE LOG

Client:

Carlson Environmental Cons

Project No.:

090993

Date:

12/14/2009

Units:

mmHg Absolute

Canister#	Sample #	Initial Pressure	Final Pressure
014	42486	451.4	900.0
067	42487	578.3	900.3
342	42488	529.2	900.9
158	42489	576.8	900.0
148	42490	5 79.5	901.6
155	42491	5 51.5	900.7
074	42492	555.2	902.0
070	42493	584.0	900.0
058	42494	481.5	901.7
065	42495	568.7	900.9
099	42496	252.6	906.0
093	42497	234.6	905.5
073	42498	46.2	911.0
112	42499	76.0	904.9
134	42500	159.4	904.4
013	42501	72.6	901.7
081	42502	270.1	900.4
339	42503	325.0	904.7
139	42504	144.8	900.6
149	42505	18.2	900.9

May 5, 2000

HDR/WLJorden

Mr. David Schilson, P.E.
Jefferson County Department of Health
Air Pollution Control Program
P.O. Box 2648
Birmingham, AL 35202

RE:

New Georgia Landfill

Tier 2 NMOC emissions calculations HDR Project No. 07507-018-096

Dear Mr. Schilson:

Enclosed please find HDR's report on the Tier 2 NMOC emissions calculations for the New Georgia Landfill. The average source-specific NMOC concentration was determined to be 222 ppmv. The current NMOC emission rate has been estimated, using the EPA Landgem Model, to be 23 megagrams per year. Furthermore, the estimated NMOC emissions do not exceed the 50 megagram per year threshold over the next five years.

We note that 40 CFR Part 60, Section 60.754(a)(3)(iii) allows for a five year reporting period if NMOC emissions are estimated to be below 50 megagrams per year. In order to simplify recordkeeping requirements, we request that the City be allowed to follow the five year reporting schedule. In that way the next report would be due in May 2005 and would be based on the source specific NMOC test values, performed at that time. A similar request is made for Eastern Landfill. The next scheduled report and site-specific NMOC testing for Eastern would be in early 2004.

Thank you for your consideration in this matter. Please feel free to call me at (678) 775-4862 should you have any questions.

Sincerely,

HDR ENGINEERING, INC

George Kaffezakis, P.E. Semor Project Manager

Cc:

Paul Ward, City of Birmingham

Mark Dolan, David Volkert and Associates, Inc.

Fred Sebesta, HDR Carlo Lebron, HDR

CITY OF BIRMINGHAM NEW GEORGIA LANDFILL TIER 2 LANDFILL GAS EMISSIONS





HDR Engineering, Inc.

Table of Contents

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2.0	Air Emission Evaluation 1 2.1 Background 1 2.2 Methodology 2 2.3 Analysis Results 2 2.4 Model Results 3	
3.0	References4	
Fig	Figures ure 2-1 Tier II Sample Location Plan	
	Appendices	

Appendix A Analytical Results
Appendix B Model Results

1.0 INTRODUCTION

The City of Birmingham ("the City") began operation at the New Georgia Landfill ("the Landfill") in Fiscal Year 1970. The Landfill, located in the northern portion of the City, received municipal solid wastes ("MSW") consisting of residential and commercial refuse, construction and demolition waste, wood wastes, yard wastes, and clean cover material. The Landfill received no hazardous waste for co-disposal. Currently the landfill is inactive, having ceased MSW operations in 1998.

Since the adoption of the EPA New Source Performance Standards and Emission Guidelines ("NSPS" and "EG") landfill owner/operators in the State of Alabama have been required to determine the NonMethane Organic Compound ("NMOC") emissions from their facilities. HDR Engineering, Inc. ("HDR") was engaged by David Volkert and Associates, Inc on behalf of the City to complete this emission estimation. HDR completed the Tier 1 emission estimation May 28, 1997 and found, based upon application of Federal and State approved default values to the emission model, that emissions from the Landfill were estimated to be 846 Megagrams per year.

Pursuant to 40 CFR Part 60, Section 60.757(c)(1), the City elected to determine a source-specific NMOC concentration in recalculating the NMOC emission rate. Using Tier 2 analysis results, NMOC emissions are estimated to be twenty-three megagrams in 2000. The highest estimated NMOC emissions were 25 megagrams in 1997. The results of this analysis are presented within this report.

2.0 NMOC EMISSION ESTIMATE

2.1 Background

The air emission evaluation review was completed with the EPA Landgem Model Version 2.01 (EPA, 1998). This model is based on a first order decay equation using site-specific data, AP-42 data, or Clean Air Act (NSPS) data. AP-42 and user specific data was used for this modeling. The AP-42 data included a methane generation rate (k) value of 0.04/yr and a methane generation potential of (Lo) 100 m³/Mg. The User Specific data is the amount determined from the testing. The model estimates gas emissions and applies concentration factors (in this case source-specific Tier II values) and molecular weights to estimate the NMOC emissions among other air pollutants.

In order for the model to estimate the gas generation rates, waste quantities are required for input on an annual basis. The quantity of waste disposed of at the New Georgia Landfill since it opened in 1970 (assumed opening date January 1, 1970) was estimated using approximate daily quantities of waste accepted at the landfill provided by the City of Birmingham. HDR also used scale data for FY 1988-1989 through 1991-1992, which had previously been provided by the City for the period(s) prior to June 1995. MSW

ceased being received at New Georgia in 1998. It is planned to potentially expand and reopen the site in approximately 2006; to utilize fully the unconstructed but permitted design capacity. HDR's calculations reflect this possibility as can be seen in the Landgem model results

2.2 Methodology

Typically, Tier 2 testing consists of taking samples from push-probes temporarily placed in the landfill surface at a frequency of two samples per hectare (one sample per 1.24 acres) with a maximum number of samples limited to 50. However, NSPS rules allow the use of composite sampling. The rules do not specify a minimum sample size, but we understand that the standard industry practice is to obtain five composite samples per Summa canister.

At landfills with existing gas collection systems, NSPS rules allow for other methods to determine the source-specific NMOC concentration (40 CFR Part 60.754 (a)(5)). HDR received approval from EPA and Jefferson County Department of Health in March 2000 to sample directly from the existing gas system as an alternative sampling procedure. Since this gas collections system provides at least nine good sampling points, we obtained samples from each lateral into nine separate canisters. One of the nine laterals servicing the previously closed area is S-shaped and has multiple sampling ports. HDR sampled three ports from this lateral into one canister. Figure 2-1 identifies the sample locations. As a verification check, we obtained one sample from the main header downstream of the condensate knockout. While this location was not approved for Tier II sampling and was not used in the calculation of the NMOC concentration, it provided additional confirmatory information. Performance Analytical Inc. performed the laboratory analysis.

2.3 Analysis Results

As noted in the attached laboratory report (Appendix A), the samples were received intact. Also, the nitrogen content for each canister was below the regulatory requirement 20 percent (EPA Method 25C, Section 4.3). The greatest nitrogen content for any of the canisters was 14.5 percent. The NMOC concentration (measured as hexane) of samples collected from laterals 1 through 9 ranged from 120 to 290 ppmv with an average of 222 ppmv. This average concentration was used in the emission estimation modeling.

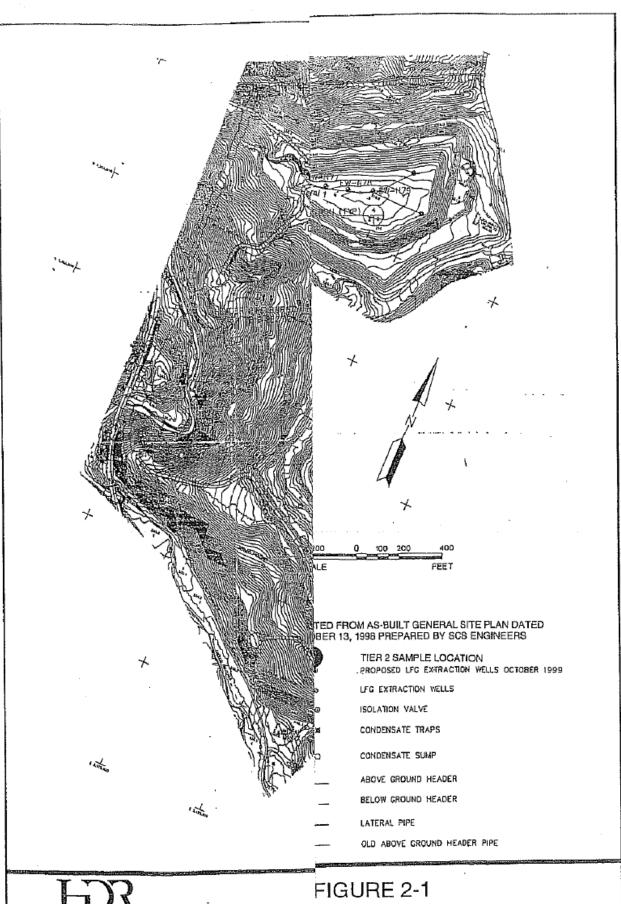
2

2.4 Model Results

The model results (in Appendix B), using the average NMOC concentration of 222 ppmv, indicate that the Landfill is not subject to emission controls at this time. The current NMOC emission rate is twenty-three (23) megagrams per year. Furthermore, emissions estimates for the next five years are below the 50-megagram threshold. Calculations using these results with in-place waste quantities will be submitted to the Department for review on a periodic basis pursuant to NSPS requirements. Additionally, source specific testing for NMOC concentration will be conducted every five years

3.0 REFERENCES

- U.S. Environmental Protection Agency, User's Manual, Landgem Model, February 1998.
- U.S. EPA, 40 CFR Part 60, Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources, Municipal Solid Waste Landfills, March 12, 1996.



HDR Engineering, Inc. Atlanta, Georgia

TIER 2 SAMPLE LOCATIONS

APPENDIX A ANALYTICAL RESULTS



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

LABORATORY REPORT

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	и	en	٠.

HDR ENGINEERING, INC.

Date of Report:

04/28/00

Address:

2810 Premier Parkway, Suite 200

Date Received:

04/03/00

Duluth, GA 30097

PAI Project No:

P2000749

Contact:

Mr. Brad Stone

Purchase Order:

Verbal

Client Project ID: Volkert #07507 018 096

Ten (10) Stainless Steel Summa Canisters labeled:

"lateral 1"

"lateral 2"

"lateral 3"

"lateral 4"

"lateral 5"

"lateral 6"

"lateral 7"

"lateral 8"

"lateral 9"

"Main Header"

The samples were received at the laboratory under chain of custody on April 3, 2000. The samples were received intact. The dates of analyses are indicated on the attached data sheets.

Total Gaseous Non-Methane Organics as Hexane Analysis

The samples were analyzed in triplicate for total gaseous non-Methane organics as Hexane according to EPA Method 25C. The analyses were performed by gas chromatography using flame ionization detection/total combustion analysis.

Nitrogen Analysis

The samples were also analyzed in duplicate for Nitrogen using a Hewlett Packard Model 5890 gas chromatograph equipped with a thermal conductivity detector (TCD).

The results of analyses are given on the attached data sheets.

Reviewed and Approved:

Reviewed and Approved:

Heather Farr

Analytical Chemist

Principal Chemist



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

RESULTS OF TOTAL GASEOUS NON-METHANE ORGANICS AS HEXANE ANALYSIS PAGE 1 OF 1

HDR Engineering, Inc. Client:

Volkert/07507 018 096 Client Project ID:

P2000749 PAI Project ID:

Test Code: EPA Method 25C

Date Sampled:

3/30/00

Instrument ID: HP5890A/FID/TCA

Date Received:

4/3/00

Analyst: Heather Farr

Date Analyzed: 4/10 - 4/11/00

Volume(s) Analyzed:

0.50 ml

Matrix: Summa Canister(s)

0.060 ml

			Total Gaseous Non-Met	nane Organics as Hexane		
Client Sample ID	PAI Sample ID	D.F.	Concentration in ppm, v/v			
			Result	Reporting Limit		
lateral 1	P2000749-001	2.30	280	2.8		
lateral 2	P2000749-002	2.30	290	2.8		
lateral 3	P2000749-003	2.30	190	2.8		
lateral 4	P2000749-004	2,22	240	2.8		
lateral 5	P2000749-005	2.33	250	2.8		
lateral 6	P2000749-006	2.64	240	2.8		
lateral 7	P2000749-007	2.39	240	2,8		
lateral 8	P2000749-008	2.39	150	2.8		
lateral 9	P2000749-009	2.39	120	2.8		
Main header	P2000749-010	3.08	130	4.3		
Method Blank	P000410-MB	1.00	ND	0.17		
Method Blank	P000411-MB	1.00	ND	0.17		

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By:__



Air Quality Laboratory A Division of Comminia Analytical Services, Inc. An Employer Owned Company

RESULTS OF NITROGEN ANALYSIS PAGE 1 OF 1

Client: HDR Engineering, Inc.

Client Project ID: Volkert/07507 018 096

PAI Project ID: P2000749

Test Code: GC/TCD

Date Sampled:

3/30/00

su: 3/

Instrument ID: HP5890/TCD #1

Date Received:

4/3/00 4/10/00

Analyst: Heather Farr

Date Analyzed:

0,10 ml

Matrix: Summa Canister(s)

Volume(s) Analyzed:

			Nitrogen			
Client Sample ID	PAI Sample ID	D.F.	(%, v/v)			
			Result	Reporting Limit		
lateral 1	P2000749-001	2.30	10.8	0.200		
lateral 2	P2000749-002	2.30	6,60	0.200		
lateral 3	P2000749-003	2.30	14.5	0.200		
lateral 4	P2000749-004	2.22	6.13	0.200		
lateral 5	P2000749-005	2.33	13.2	0.200		
lateral 6	P2000749-006	2.64	13,7	0.200		
lateral 7	P2000749-007	2,39	12.6	0.200		
lateral 8	P2000749-008	2.39	12.2	0.200		
lateral 9	P2000749-009	2.39	9.73	0.200		
Main header	P2000749-010	3.08	11.3	0.300		
Method Blank	P000410-MB	1,00	ND	0.100		

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RC Date: 41800

007495VG.RD2 - Sample



Air Quality Laboratory
A Division of Columbia Analytical Services, Inc.
An Employee Owned Company

2665 Park Center Drive, Suite D Simi Valley, California 93065 Phone (805) 526-7161 Fax (805) 526-7270

Chain of Custody Record Analytical Services Request

Relinquished by : (Signature)	Keinduished by ASignature)	Relinquished by : (Signature)		main header	lateral 9	lateral 8	lateral 7	lateral 6) o to ~ a t S	lateral 4	167-25-13	lateral 2	lateral 1	Client Sample ID	Brad Stone	Voltart	Client Project Name / Location	Det of	Client / Address HDR E
				<									3/30/00	Date Collected		S. Taranta		64 3	gachtra 1517eering
				10:10	3.450.50	9:40	9:35	9:30	9:25	9:12	9:05	9:00	8:55	Time Collected	NO W	Sampler (Signatura)		30342	FIRE Peachtree Durwoody RA
				-/D	1-9	18	-7	-6	-25	-4	-3	-2	-/	Lab Sumple No.	A.				sh Rs
Date	1	3/31/00		Grab	Camparite/book	<u>_</u>							Grab	Type of Sample			67507	Client Project No.	Phone 494.843.8464
Time	Time	Time 9:30 (145	421	306	123	116	392	477	165	267	136	Container ID (Scrial#)	7		810	No.	
Received by : (Signature)	Received by : (Signature)	Received by : Lignature)												Regulator ID (Serial#)			960		Fax 404 84
: (Signature)	: (Signature)	(amendass		K	×	7	K	77	4	ন	4	*	4	NM	-7	e M	25:		404 843.8673
		low		x	*	À	×	4	3	7	×	X	×	NV	\		25°	0	
															_	\	_		ANALYSES
														Expected Turnsround Time		_	<u></u>		S
Date	Date	7/3/00			-														PAI Project No.
Time	Time	10:00												Remarks					PAI Project No. 749

APPENDIX B MODEL RESULTS

1070	4.530E+05	2.827E+00	7.888E+02
1972		4.155E+00	1.159E+03
1973	6.790E+05		
1974	9.060E+05	5.437E+00	1.517E+03
1975	1.130E+06	6.650E+00	1.855E+03
1976	1.360E+06	7.854E+00	2.191E+03
1977	1.590E+06	9.010E+00	2.514E+03
1978	1.810E+06	1.006E+01	2.806E+03
1979	2.040E+06	1.113E+01	3.104E+03
1980	2.260E+06	1.209E+01	3.373E+03
1981	2.490E+06	1.308E+01	3.649E+03
1982	2.720E+06	1.403E+01	3.915E+03
1983	2.940E+06	1.488E+01	4.152E+03
1984	3.170E+06	1.576E+01	4.398E+03
1985	3.400E+06	1.661E+01	4.634E+03
1986	3.620E+06	1.736E+01	4.843E+03
1987	3.850E+06	1.814E+01	5.061E+03
1988	4.080E+06	1.890E÷01	5.271E+03
1989	4.360E+06	1.994E+01	5.562E+03
1990	4.540E+06	2.030E+01	5.664E+03
1991	4.680E+06	2.040E+01	5.690E+03
1992	4.970E+06	2.144E+01	5.982E+03
1993	5.190E+06	2.200E+01	6.138E+03
1994	5.420E+06	2.260E+01	6.306E+03
1995	5.640E+06	2.312E+01	6.449E+03
1996	5.890E+06	2.380E+01	6.641E+03

Page 2

1997	6.140E+06	Exhibit_b 2.446E+01	6.824E+03
1998	6.400E+06	2.516E+01	7.018E+03
1999	6.400E+06	2.417E+01	6.743E+03
2000	6.400E+06	2.322E+01	6.479E+03
2001	6.400E+06	2.231E+01	6.225E+03
2002	6.400E+06	2.144E+01	5.981E+03
2003	6.400E+06	2.060E+01	5.746E+03
2004	6.400E+06	1.979E+01	5.521E+03
2005	6.400E+06	1.901E+01	5.304E+03
2006	6.400E+06	1.827E+01	5.096E+03
2007:	6.400E+06	1.755E+01	4.897E+03
2008	6.655E+06	1.849E+01	5.157E+03
2009	6.909E+06	1.938E+01	5.407E+03
2010	7.164E+06	2.024E+01	5.648E+03
2011	7.419E+06	2.107E+01	5.879E+03
2012	7.419E+06	2.025E+01	5.648E+03
2013	7.419E+06	1.945E+01	5.427E+03
2014	7.419E+06	1.869E+01	5.214E+03
2015	7.419E+06	1.796E+01	5.009E+03
2016	7.419E+06	1.725E+01	4.813E+03
2017	7.500E+06	1.709E+01	4.768E+03
2018	7.500E+06	1.642E+01	4.581E+03
2019	7.500E+06	1.578E+01	4.402E+03
2020	7.500E+06	1.516E+01	4.229E+03
2021	7.500E+06	1.456E+01	4.063E+03
2022	7.500E+06	1.399E+01	3.904E+03

Page 3

2023	7.500E+06	1.344E+01	3.751E+03
2024	7.500E+06	1.292E+01	3.604E+03
2025	7.500E+06	1.241E+01	3.462E+03
2026	7.500E+06	1.192E+01	3.327E+03
2027	7.500E+06	1.146E+01	3.196E+03
2028	7.500E+06	1.101E+01	3.071E+03
2029	7.500E+06	1.058E+01	2.950E+03
2030	7.500E+06	1.016E+01	2.835E+03
2031	7.500E+06	9.763E+00	2.724E+03
2032	7.500E+06	9.380E+00	2.617E+03
2033	7.500E+06	9.012E+00	2.514E+03
2034	7.500E+06	8.659E+00	2.416E+03
2035	7.500E+06	8.319E+00	2.321E+03
2036	7.500E+06	7.993E+00	2.230E+03
2037	7.500E+06	7.680E+00	2.142E+03
2038	7.50 0 E+06	7.379E+00	2.058E+03
2039	7.500E+06	7.089E+00	1.978E+03
2040	7.500E+06	6.811E+00	1.900E+03
2041	7.500E+06	6.544E+00	1.826E+03
2042	7.500E+06	6.288E+00	1.754E+03
2043	7.500E+06	6.041E+00	1.685E+03
2044	7.500E+06	5.804E+00	1.619E+03
2045	7.500E+06	5.577E+00	1.556E+03
2046	7.500E+06	5.358E+00	1.495E+03
2047	7.500E+06	5.148E+00	1.436E+03

2074	7.500E+06	1.748E+00	4.877E+02
2075	7.500E+06	1.680E+00	4.686E+02
2076	7.500E+06	1.614E+00	4.502E+02
2077	7.500E+06	1.550E+00	4.326E+02
2078	7.500E+06	1.490E+00	4.156E+02
2079	7.500E+06	1.431E+00	3.993E+02
2080	7.500E+06	1.375E+00	3.836E+02
2081	7.500E+06	1.321E+00	3.686E+02
2082	7.50 0 E+06	1.269E÷00	3.541E+02
2083	7.500E+06	1.220E+00	3.403E+02
2084	7.500E+06	1.172E+00	3.269E+02
2085	7.500E+06	1.126E+00	3.141E+02
2086	7.500E+06	1.082E+00	3.018E+02
2087	7.500E+06	1.039E+00	2.900E+02
2088	7.500E+06	9.986E-01	2.786E+02
2089	7.500E+06	9.594E-01	2.677E+02
2090	7.500E+06	9.218E-01	2.572E+02
2091	7.500E+06	8.857E-01	2.471E+02
2092	7.500E+06	8.509E-01	2.374E+02
2093	7.500E+06	8.176E-01	2.281E+02
2094	7.500E+06	7.855E-01	2.191E+02
2095	7.500E+06	7.547E-01	2.105E+02
2096	7.500E+06	7.251E-01	2.023E+02
2097	7.500E+06	6.967E-01	1.944E+02
2098	7.500E+06	6.694E-01	1.867E+02

		Exhibit_b	
2099	7.500E+06	6.431E-01	1.794E+02
2100	7.500E+06	6.179E-01	1.724E+02
2101	7.500E+06	5.937E-01	1.656E+02
2102	7.500E+06	5.704E-01	1.591E+02
2103	7.500E+06	5.480E-01	1.529E+02
2104	7.500E+06	5.265E-01	1.469E+02
2105	7.500E+06	5.059E-01	1.411E+02
2106	7.500E+06	4.861E-01	1.356E+02
2107	7.500E+06	4.670E-01	1.303E+02
2108	7.500E+06	4.487E-01	1.252E+02
2109	7.500E+06	4.311E-01	1.203E+02
2110	7.500E+06	4.142E-01	1.156E+02
2111	7.500E+06	3.980E-01	1.110E+02
2112	7.500E+06	3.823E-01	1.067E+02
2113	7.500E+06	3.674E-01	1.025E+02
2114	7.500E+06	3.530E-01	9.847E+01
2115	7.500E+06	3.391E-01	9.461E+01
2116	7.500E+06	3.258E-01	9.090E+01
2117	7.500E+06	3.130E-01	8.733E+01
2118	7.500E+06	3.008E-01	8.391E+01
2119	7.500E+06	2.890E-01	8.062E+01
2120	7.500E+06	2.776E-01	7.746E+01
2121	7.500E+06	2.668E-01	7.442E+01
2122	7.500E+06	2.563E-01	7.150E+01
2123	7.500E+06	2.462E-01	6.870E+01
2124	7.500E+06	2.366E-01	6.600E+01

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Exhi.bi.t_b

2125	7.500E+06	2.273E-01	6.342E+01
2126	7.500E+06	2.184E-01	6.093E+01
2127	7.500E+06	2.098E-01	5.854E+01
2128	7.500E+06	2.016E-01	5.625E+01
2129	7.500E+06	1.937E-01	5.404E+01
2130	7.500E+06	1.861E-01	5.192E+01
2131	7.500E+06	1.788E-01	4.988E+01
2132	7.500E+06	1.718E-01	4.793E+01
2133	7.500E+06	1.651E-01	4.605E+01
2134	7.500E+06	1.586E-01	4.424E+01
2135	7.500E+06	1.524E-01	4.251E+01
2136	7.500E+06	1.464E-01	4.084E+01
2137	7.500E+06	1.407E-01	3.924E+01
2138	7.500E+06	1.351E-01	3.770E+01
2139	7.500E+06	1.298E-01	3.622E+01
2140	7.500E+06	1.248E-01	3.480E+01
2141	7.500E+06	1.199E-01	3.344E+01
2142	7.500E+06	1.152E-01	3.213E+01
2143	7.500E+06	1.106E-01	3.087E+01
2144	7.500E+06	1.063E-01	2.966E+01
2145	7.500E+06	1.021E-01	2.849E+01
2146	7.500E+06	9.813E-02	2.738E+01
2147	7.500E+06	9.429E-02	2.630E+01
2148	7.500E+06	9.059E-02	2.527E+01
2149	7.500E+06	8.704E-02	2.428E+01

2150	7.500E+06	Exhibit_b 8.362E-02	2.333E÷01
2151	7.500E+06	8.034E-02	2.241E+01
2152	7.500E+06	7.719E-02	2.154E+01
2153	7.500E+06	7.417E-02	2.069E+01
2154	7.500E+06	7.126E-02	1.988E+01
2155	7.500E+06	6.847E-02	1.910E+01
2156	7.500E+06	6.578E-02	1.835E+01
2157	7.500E+06	6.320E-02	1.763E+01
2158	7.500E+06	6.072E-02	1.694E+01
2159	7.500E+06	5.834E-02	1.628E+01
2160	7.500E+06	5.605E-02	1.56 4 E+01
2161	7.500E+06	5.386E-02	1.503E+01
2162	7.500E+06	5.175E-02	1.444E+01
2163	7.500E+06	4.972E-02	1.387E+01
2164	7.500E+06	4.777E-02	1.333E+01
2165	7.500E+06	4.589E-02	1.280E+01
2166	7.500E+06	4.409E-02	1.230E+01
2167	7.500E+06	4.237E-02	1.182E+01
2168	7.500E+06	4.070E-02	1.136E÷01
2169	7.500E+06	3.911E-02	1.091E+01
2170	7.500E+06	3.757E-02	1.048E+01
2171	7.500E+06	3.610E-02	1.007E+01
2172	7.500E+06	3.469E-02	9.677E+00
2173	7.500E+06	3.333E-02	9.297E+00
2174	7.500E+06	3.202E-02	8.933E+00
2175	7.500E+06	3.076E-02	8.582E+00

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2176		7.500E+06	2.956E-02	8.246E+00
2177		7.500E+06	2.840E-02	7.923E+00
2178		7.500E+06	2.728E-02	7.612E+00
2179		7.500E+06	2.621E-02	7.313E+00
2180		7.500E+06	2.519E-02	7.027E+00
2181		7.500E+06	2.420E-02	6.751E+00
2182		7.500E+06	2.325E-02	6.486E+00
2183		7.500E+06	2.234E-02	6.232E+00
2184		7.500E+06	2.146E-02	5.988E+00
2185		7.500E+06	2.062E-02	5.753E+00
2186	·	7.500E+06	1.981E-02	5.527E+00
2187		7.500E+06	1.904E-02	5.311E+00
2188	1	7.500E+06	1.829E-02	5.102E+00
2189	,	7.500E+06	1.757E-02	4.902E+00
2190)	7.500E+06	1.688E-02	4.710E+00
2191		7.500E+06	1.622E-02	4.525E+00
2192	}	7.500E+06	1.559E-02	4.348E+00
2193	1	7.500E+06	1.497E-02	4.178E+00
2194	L	7.500E+06	1.439E-02	4.014E+00
2195	5	7.500E+06	1.382E-02	3.856E+00
2196	5	7.500E+06	1.328E-02	3.705E+00
2197	7	7.500E+06	1.276E-02	3.560E+00
2198	3	7.500E+06	1.226E-02	3.420E+00
2199)	7.500E+06	1.178E-02	3.286E+00
2200)	7.500E+06	1.132E-02	3.157E+00

		Exhibitb	
2201	7.500E+06	1.087E-02	3.034E+00
2202	7.500E+06	1.045E-02	2.915E+00
2203	7.500E+06	1.004E-02	2.800E+00
2204	7.500E+06	9.644E-03	2.690E+00
2205	7.500E+06	9.266E-03	2.585E+00
2206	7.500E+06	8.902E-03	2.484E+00
2207	7.500E+06	8.553E-03	2.386E+00
2208	7.500E+06	8.218E-03	2.293E+00
2209	7.500E+06	7.896E-03	2.203E+00
2210	7.500E+06	7.586E-03	2.116E+00
2211	7.500E+06	7.289E-03	2.033E+00
2212	7.500E+06	7.003E-03	1.95 4 E+00
2213	7.500E+06	6.728E-03	1.877E+00
2214	7.500E+06	6.465E-03	1.803E+00
2215	7.500E+06	6.211E-03	1.733E+00
2216	7.500E+06	5.968E-03	1.665E+00

REQUEST FOR PROPOSAL FOR METHANE GAS EXTRACTION FROM MUNICIPAL LANDFILLS FOR THE CITY OF BIRMINGHAM

I hereby certify that we do not discriminate in employment of our personnel against any persons on account of race, creed, color, sex, or national origins, and acknowledges and agrees that the City encourages minority - and women – owned business participation to the maximum extent possible. This policy includes Historically Underutilized Business Enterprises such as architectural firms, engineering firms, investment banking firms, other professional service providers, and construction contractors as part of the City's business, economic and community revitalization programs.

Vendor:				
Contact Person:		Title:		
E-Mail:				
Phone:		Fax:		
Business Address:				
City:	State:		Zip	
Signature:				
Name:	(Type or Print)			
Date:				

Complete and return this page with your proposal.

ap21my31je.rl

Recommended By: The Mayor

Submitted By:

The Mayor

RESOLUTION NO.

598-09

WHEREAS, the City finds that it is desirable and necessary to maintain transparency in city government; and

WHEREAS, subject to federal and state laws, the City has the right to rafuse to do business with persons and entities which fail to comply with this policy of transparency;

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Binningham that, subject to federal and state law, effective immediately and with the exception of contracts and transactions governed by existing state competitive bid laws, all individuals, agencies, non-profita, partnerships, corporations, limited liability companies, and other groups or entities seeking to do business with the City, provide services to the City, enter into a contract or appointment with the City, or obtain funding of any sort from the City (hereinafter referred to jointly as "Applicants") are hereby required to complete the Transparency in City Government Disclosure Form ("Form") on file in the City Clerk's office prior to entering into any contract or agreement with or accepting any appointment or funds from the City. Any Applicant which fails to accurately and satisfactorily complete the Form may be prohibited from receiving City funds and from entering into an appointment, agreement or other contract with the City. Forms shall be available for pickup in the City Clerk's office – Third Floor City Hall. Applicants shall deliver completed Forms to the Mayor's Office, Third Floor City Hall – Attention: Internal Audit and Contract Compliance Division. Copies of relevant completed Forms shall be submitted to the City Council or the appropriate Council Committee prior to consideration of applicable contracts, appointments and budget

Adopted by the Council of the City of Birmingham April 22, 2009 and Approved by the Mayor April 28, 2009

Farly R. Amito

NOTE: Copy of the completed Transparency in City Government Disclosure Form can be submitted with your proposal.

TRANSPARENCY IN CITY GOVERNMENT DISCLOSURE FORM

APPLICABLE TO ALL CITY CONTRACTS AND APPOINTMENTS NOT GOVERNED BY STATE COMPETITIVE BID LAWS

INSTRUCTIONS:

This form must be fully completed by each individual, firm, group, agency, non-profit and other entity (hercinafter referred to as "you" or "Applicant") seeking to do business with the City, provide services to the City, enter into a contract or appointment with the City, or apply for City funding.

Submit completed forms to the Mayor's Office, Third Floor City Hall – Attention: Internal Audit and Contract Compliance Division. Answer all questions applicable to you. Respond "Not applicable" or "NA" if a question does not apply to you. Attach additional pages if needed. Completed forms will be submitted to the Birmingham City Council along with the Applicant's proposed contract, appointment and/or funding request.

- 1. Name of Applicant:
- 2. Physical Street Address of Applicant:
- Mailing Address of Applicant (if different form street address):
- 4. Phone Number of Applicant:
- 5. Key Contact Person for Applicant:
- Identify all officers, directors, owners, substantial investors in (5% or more of Applicant's stock) and partners of the Applicant:
- 7. Are any of these persons City employees?

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- 8. Are any of these persons related by blood or by marriage to City officials or employees? If yes, list all pertinent relationships.
 9. Identify all key employees or personnel of the Applicant:
- 10. Are any of these persons City employees?
- Are any of these persons related by blood or by marriage to City officials or employees? If yes, list all pertinent relationships.
- Has the Applicant ever received City funding, entered into a contract or appointment with the City, or provided services to the City?
- 13. If you answered "Yes" to Question No. 12:
 - State the amount of funds received or amount of the contract or appointment.
 - Describe in detail the work performed, scope of appointment, or purpose for which the funds were used, and attach supporting documentation such as receipts and invoices.
 - c) Attach a copy of the contract or appointment.
- 14. Attach resumes of Applicant's key personnel.
- 15. Attach Applicant's articles of incorporation if applicable.

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- 16. Attach Applicant's 501(c)(3) letter from Internal Revenue Service if applicable.
- 17. Describe in detail the work Applicant seeks to perform for the City.
- Identify all sources and amounts of public funding (federal, state and local) the Applicant has received within the past three (3) years.
- Has the Applicant ever been suspended or barred from participating in federal contracts or other federal assistance? If yes, explain.
- 20. Has any individual associated with the Applicant ever been suspended or barred from participating in federal contracts or other federal assistance? If yes, explain.
- 21. During the past three (3) years, has Applicant retained, hired or paid any lobbyist, political consultant or attorney to assist Applicant in its bid to perform work for the City or obtain a City contract, appointment or funding? If yes, identify by individual name, firm name, address and telephone number any such lobbyist, political consultant or attorney.

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22.	ident	ary any business or firm in which:
	a)	The Applicant or its key personnel owns 5% or more of the stock;
	b)	The Applicant or its key personnel serves as an officer or director;
	c)	The Applicant or its key personnel is a partner.
punis federa I deck questi	hable l il pena are unc	failure to file a Transparency in City Government Disclosure Form by state or local law to the maximum allowed by law and subject to an alties required by the U.S. Code Annotated. der penalty of perjury that the Applicant's answers to each and every the City of Birmingham Transparency in City Government Disclosure and correct;
Signat	ure	
Print !	Name	
Date		
Title/P	osition	with Applicant